



AgFleet:

**Emerging Technology
for
Crop Management Solutions**

Erin Abegg

A & L Analytical Labs- Memphis

What is AgFleet?

- AgFleet is an innovative, easy to use, modular web-based suite of GIS applications to aid in the practical and efficient management of cropland

Major Impacts of AgFleet on You and Your Clients

- ✓ **Efficiency and Ease of Use**
- ✓ **Technology Solutions**
- ✓ **Evolving Systems**

Efficiency- Ease of Use

➤ Streamlines various tasks

- Drawing boundaries from ortho images online
- Managing boundaries and sample points
- Soil sample information sheets available
- Lab merges soil sample data with points/maps automatically
- Generates all standard formats for VRT application maps
- All crops, hormones, products are in the system and are featured as user friendly “Drop-Down” boxes

Efficiency and Ease of Use

➤ Easy Maintenance

- Software updates are automatic
- Consistent design throughout modules
- Complimentary PDA software for mapping boundaries and sample points, as well as for recordkeeping, scouting and ground-truthing
- Email/text message updates available

Technology Solutions

- Promotes Consultant - client involvement
- Web based solution- convenient for everyone to use at any time
- Modular design allows introduction to new features at user(s) own pace
- GIS solution that allows you to stay ahead of your competition

Evolving Systems

- Aerial Imagery- John Deere OptiGrow
- Recordkeeping
- Yield Data Processing
- Zone Management
- New data sources- John Deere SIS
- System enhancements from user requests



AgFleet Version 3.0

[What's New?](#)

- 11/17/2004 - [Boundary Editor Update](#)
- 11/01/2004 - [New AgFleet Features](#)
- 10/27/2004 - [Farm Field Map Enhancements](#)
- 10/12/2004 - [Record Keeper PDA V. 2.77](#)
- 10/04/2004 - [Split Polygon Tool is Back](#)
- 09/15/2004 - [Plant Tissue Products](#)
- 09/15/2004 - [Rename & Delete Saved PDF's](#)
- 09/14/2004 - [Resample Notifications](#)
- 09/14/2004 - [Dynamic Custom Color Scales](#)



Before Logging in, please carefully read the [Terms and Conditions](#) of use agreement for the AgFleet web site. By logging in your user name and password, you agree to be bound by the terms and conditions of the agreement.

AgFleet Requirements:








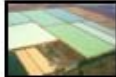




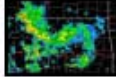

August 14, 2006 Technical Support Call AL Labs at 800-264-4522 or Email support@allabs.com



Welcome Erin Abegg
You have access to:



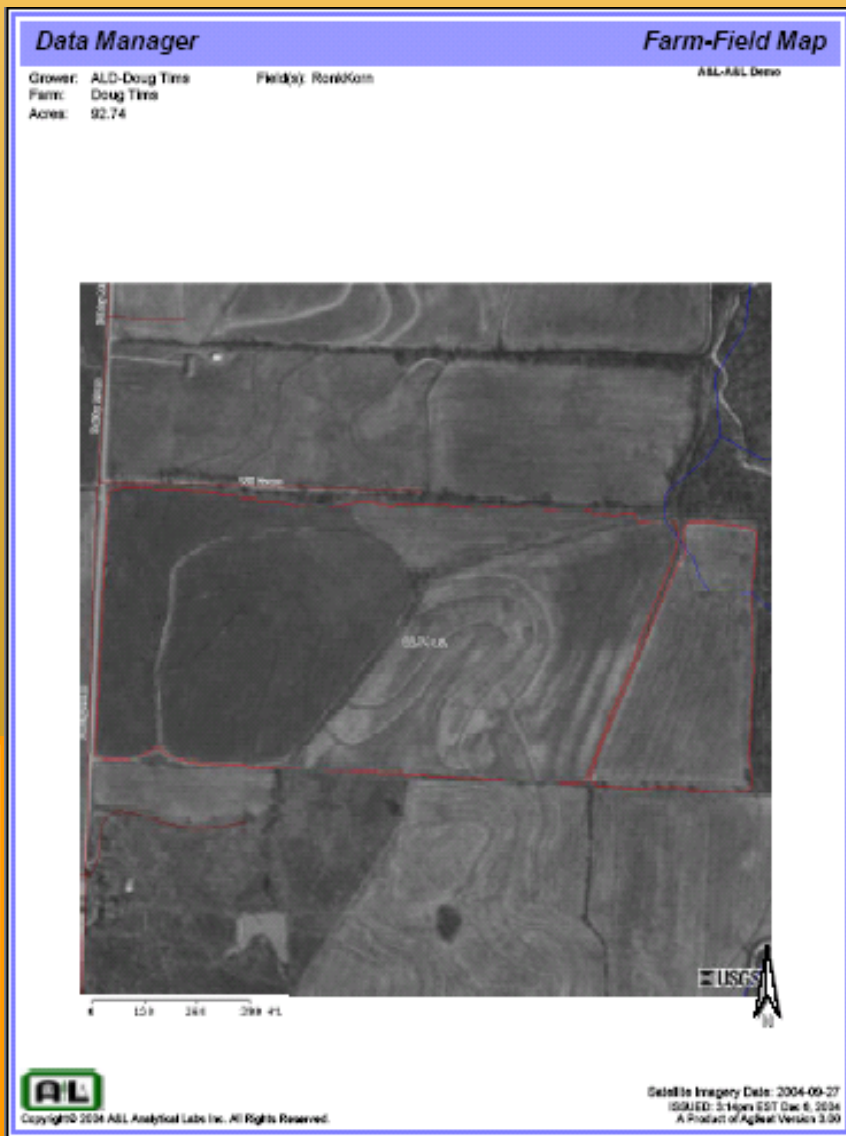
Management Tools Show/Hide Description

| Module | Quick Notes | Description |
|---|---|---|
|  Data Manager |  | <ul style="list-style-type: none"> Define Growers, Farms, and Fields in the system. Upload boundaries, yield, veris, and other data files for fields. Print Farm/Field maps and summaries as well as other products. |
|  JDAS Imagery | | <ul style="list-style-type: none"> Order and purchase John Deere Aerial Imagery for specified fields in the system. |
|  Data Viewer |  | <ul style="list-style-type: none"> View data that has been associated to specified fields, including boundaries, veris, yield, etc... Print Farm/Field maps and summaries. |
|  Zone Maker |  | <ul style="list-style-type: none"> Analysis tool that allows a series of zones to be created based on various nutrients, yield data, veris data and other data layers. Make application products and files. |
|  Blend | | <ul style="list-style-type: none"> Allows fertilizers to be entered with various nutrient values. Can blend selected fertilizers to reach a specified nutrient profile. |
|  Evaluator | | <ul style="list-style-type: none"> Determines economic impact of management activities by using an in-field test plot compared to the rest of the field. |
|  Discussion Board | | <ul style="list-style-type: none"> Allows users to discuss AgFleet related items and suggestions. Last Post 1 mon 3 days ago, 2006-07-11 12:05:29 |
|  My Radar | | <ul style="list-style-type: none"> Radar image that has focus on Grower's location. |
|  User Preferences | | <ul style="list-style-type: none"> Customize AgFleet setup and change certain user details, including changing password and contact information |

Main Modules of AgFleet

- Data Manager
- Field Sampler
- JDAS Imagery
- Zone Maker
- Blend
- RecordKeeper
- PrePlanner
- Irrigation Scheduling

Data Manager: Farm/ Field Map



RecordKeeper Action Summary



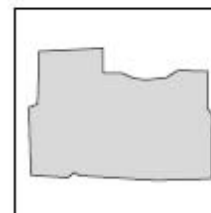
Action Summary

Jan 1, 2004 - Feb 25, 2005

A&L Demo
ALD-John Smith
Beaty
Big Field Beaty
60.33 Acres

Crop
Total Cost
Average Cost/Acre

Cotton
\$10100.83
\$167.43



| | | |
|----------------------------|--|----------------------|
| May 21, 2004 | Private - Added by gwoods 20040529 | \$130.54/Acre |
| Action: Planting | Acres: 60.33 | \$54.71/Acre |
| 5599 | | \$3300.65 |
| Planting Type: | Normal | -- |
| Crop: | Cotton | -- |
| Variety: | Bollgard/Roundup Ready - Stoneville 5599BGRR | \$2642.45 |
| Planter Type: | Vacuum | -- |
| Planter Rows: | 12 | -- |
| Row Spacing: | 38" | -- |
| Seed Population: | 40000 Seeds/Ac | -- |
| Seed Treatment: | Cruiser 5FS | \$460.92 |
| | Delta Coat AD | \$197.28 |
| Action: Application | Acres: 60.33 | \$61.33/Acre |
| 80-40-100 | | \$3700.08 |
| Fertilizer Method: | Surface - Broadcast | \$211.16 |
| Fertilizer Type: | N 80 Lb/Ac, P 40 Lb/Ac, K 100 Lb/Ac, S 10 Lb/Ac, B 1 Lb/Ac, Zn 2 Lb/Ac | \$3488.92 |
| Fertilizer Amount: | 466.00 Lb/Ac | -- |
| Action: Application | Acres: 60.33 | \$8.94/Acre |
| Cotoran | | \$539.11 |
| Herbicide Method: | Surface - Broadcast | -- |
| Herbicide Type: | Cotoran-4L (01812-00439- -00000) | \$539.11 |
| Herbicide Amount: | 2.00 Pt/Ac | -- |
| Action: Application | Acres: 60.33 | \$2.07/Acre |
| Cutworm | | \$124.72 |

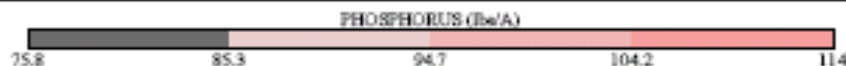
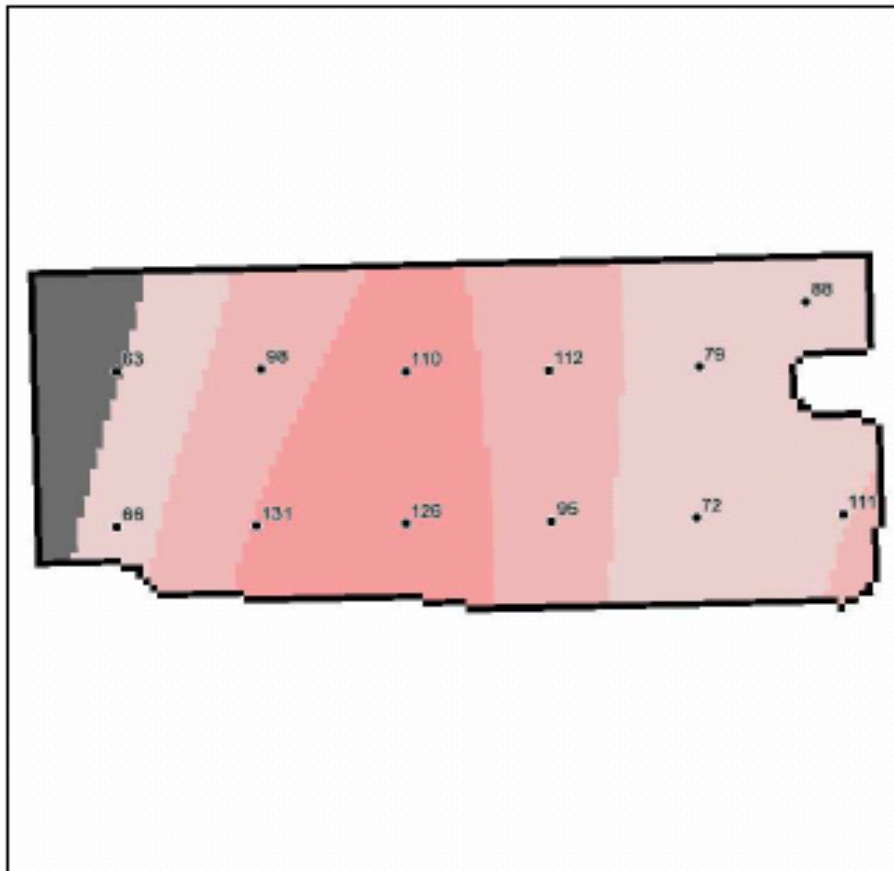
Field Sampler

PHOSPHORUS Lab Analysis

ASL-ASL Demo

Grower: ALD-Joe Jackson Field(s): BettyA
Farm: Betty
Acres: 35.08
Min: 76.0
Max: 112.0
Avg: 94

Field Sampler Lab Analysis Map for Phosphorus



Copyright © 2004 ASL Analytical Labs Inc. All Rights Reserved.

ANALYSIS BY: Bradford AgriLab
SAMPLE DATE: 2003-10-20
CONTOUR METHOD: AgFleet
ISSUED: 9:45am EST Dec 3, 2004
A Product of AgFleet Version 3.00

Field Sampler

Recommendation Summary

Location: A&L Demo *Setup Tools Products*

Product Type: Soil Product: Recommendation Summary

Grower: ALD-Joe Jackson

Farm: Betty

Field: BettyA
Steves Field

Equ: Default Equation Select: --- Default ---

Crop: Cotton Yield Goal: 1000

Crop Variety: --- N/A --- Crop Type: --- N/A ---

Prev Crop: Soybean

Sample Method: --- All Selected --- Target pH*: 6.5

Rec (%)

Sample Date(s): 2003-10-20
1999-11-01

Sample Number Range Begin:

Format: Printable

Check Here for Point Reference Map With Ortho

Enter

| Field Sampler | | | | | | | | | | | | | | Recommendation Summary | | | | | | | | | | | | | |
|------------------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----|-----|----------------------------------|-------|-------|--------|--------|-------------------------------|------------------|--------|--------|--------|--------|--------|--|--|
| GROWER: ALD-Joe Jackson | | | | | | | | | | | | | | A&L-ASL Demo | | | | | | | | | | | | | |
| CROP: Cotton | | | | | | | | | | | | | | PREV CROP: Soybean | | | | | | | | | | | | | |
| FARM: Betty | | | | | | | | | | | | | | COLL PERIOD: 2003-10-20 | | | | | | | | | | | | | |
| FIELD: BettyA | | | | | | | | | | | | | | YIELD GOAL: 1000 | | | | | | | | | | | | | |
| TGT pH: 6.5 | | | | | | | | | | | | | | SAMPLE RANGE: All Sample Numbers | | | | | | | | | | | | | |
| COLL METHOD: All Methods | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Analysis | | | | | | | | | | | | | | Fertilizer Recommendations | | | | | | | | | | | | | |
| Sample Number | Lab | P | K | Mg | Ca | S | B | Zn | Mn | SS | NN | OM | pH | Buffer | ENR | CaC | Ca | N | P ₂ O ₅ | K ₂ O | Zn | B | Mg | S | Mn | | |
| | | (lb/a) | (lb/a) | (lb/a) | (lb/a) | (lb/a) | (lb/a) | (lb/a) | (lb/a) | (lb/a) | (lb/a) | (%) | | | (ppm) | (ppm) | (lb/a) | (lb/a) | (lb/a) | (lb/a) | (lb/a) | (lb/a) | (lb/a) | (lb/a) | (lb/a) | | |
| FARM Betty: | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIELD BettyA (35.08 acres): | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. | 965 | BAL | 63 | 247 | 420 | 2289 | 136 | 3.5 | 72 | | | 1.0 | 6.7 | 7.1 | | 9.1 | 0.00 | 91 | 30 | 60 | 0.0 | 1.0 | 0 | 16 | 0.0 | | |
| 2. | 966 | BAL | 98 | 268 | 370 | 3076 | 141 | 3.2 | 88 | | | 1.1 | 7.3 | 7.2 | | 9.8 | 0.00 | 93 | 0 | 60 | 0.0 | 1.0 | 0 | 16 | 0.0 | | |
| 3. | 967 | BAL | 110 | 302 | 646 | 3028 | 157 | 3.9 | 69 | | | 1.2 | 6.7 | 7.1 | | 11.9 | 0.00 | 97 | 0 | 90 | 0.0 | 1.0 | 0 | 15 | 0.0 | | |
| 4. | 968 | BAL | 112 | 358 | 419 | 2796 | 147 | 3.5 | 69 | | | 1.1 | 6.7 | 7.1 | | 10.3 | 0.00 | 94 | 0 | 40 | 0.0 | 1.0 | 0 | 16 | 0.0 | | |
| 5. | 969 | BAL | 79 | 340 | 266 | 1929 | 126 | 3.5 | 71 | | | 1.0 | 6.8 | 7.1 | | 7.3 | 0.00 | 88 | 23 | 40 | 0.0 | 1.0 | 0 | 16 | 0.0 | | |
| 6. | 970 | BAL | 88 | 252 | 247 | 1960 | 115 | 3.5 | 86 | | | 0.9 | 6.7 | 7.1 | | 7.3 | 0.00 | 88 | 23 | 60 | 0.0 | 1.0 | 0 | 18 | 0.0 | | |
| 7. | 971 | BAL | 111 | 345 | 237 | 2155 | 105 | 3.3 | 119 | | | 0.8 | 7.2 | 7.2 | | 7.1 | 0.00 | 87 | 0 | 40 | 0.0 | 1.0 | 0 | 18 | 0.0 | | |
| 8. | 972 | BAL | 72 | 222 | 226 | 1952 | 121 | 3.8 | 109 | | | 0.9 | 7.0 | 7.2 | | 6.8 | 0.00 | 87 | 30 | 60 | 0.0 | 1.0 | 0 | 16 | 0.0 | | |
| 9. | 973 | BAL | 95 | 239 | 391 | 2506 | 131 | 3.1 | 44 | | | 1.0 | 5.8 | 6.9 | | 11.4 | 0.90 | 96 | 0 | 80 | 0.0 | 1.0 | 0 | 16 | 0.0 | | |
| 10. | 974 | BAL | 126 | 345 | 389 | 2835 | 141 | 4.6 | 78 | | | 1.1 | 6.2 | 7.0 | | 11.1 | 0.00 | 95 | 0 | 40 | 0.0 | 1.0 | 0 | 16 | 0.0 | | |
| 11. | 975 | BAL | 131 | 333 | 507 | 3254 | 168 | 3.0 | 46 | | | 1.3 | 6.4 | 7.1 | | 12.3 | 0.00 | 97 | 0 | 40 | 0.0 | 1.0 | 0 | 15 | 0.0 | | |
| 12. | 976 | BAL | 65 | 267 | 313 | 2103 | 147 | 3.8 | 93 | | | 1.1 | 6.4 | 7.1 | | 8.6 | 0.00 | 90 | 30 | 60 | 0.0 | 1.0 | 0 | 16 | 0.0 | | |
| FIELD BettyA AVG: | | | 96 | 293 | 369 | 2492 | 136 | 3.6 | 79 | | | 1.0 | 6.7 | 7.1 | | 9.4 | 0.07 | 92 | 11 | 56 | 0.0 | 1.0 | 0 | 16 | 0.0 | | |
| FARM Betty AVG: | | | 96 | 293 | 369 | 2492 | 136 | 3.6 | 79 | | | 1.0 | 6.7 | 7.1 | | 9.4 | 0.07 | 92 | 11 | 56 | 0.0 | 1.0 | 0 | 16 | 0.0 | | |

Field Sampler VRT Fertilizer File

https://www3.agfleet.com - Field Sampler - Mozilla Firefox

Field Sampler Location: A&L Demo Setup Tools Products

- Calcium

| | |
|----------------|---------|
| Type | Lime-90 |
| Rec % | 10 |
| App Cost/Ac | 2.00 |
| Cost/Ton | 39.00 |
| Max Rate | |
| Min Rate | |
| +/- lbs/ac | |
| Min Mach. Rate | 500 |

Product Type: Soil Product: Fertilizer Application Map

Grower: UAP demo Season: --N/A--
Farm: Carter Zone: --N/A--

Field: cp32, cp33, cp34, cp35, cp36

Ca (Lime) N P K Zn B Mg S Mn

Equ: 4701 -- A & L Labs TN Equation Select: Default

Crop: Rice Yield Goal: 150

Crop Variety: -- N/A -- Crop Type: -- N/A --

RMV Crop: -- None Selected -- RMV Yield:
Sample Method: -- All Selected -- Target pH*: 6.0

Overall Rec (%)

Use Most Recent Sample Date:

Sample Number Range Begin:
Contour Method: Agfleet

Format:
 Check Here for
Enter

- View PDF
- AgChem TIFF
- AgLeader
- Mid-Tech/Legacy
- SiteMate
- Point-Shape
- View PDF
- Viper
- Shape
- SoilTeq Request
- Trimble
- Trimble w/Lime Tons
- View and Save PDF

WinZip (Evaluation Version) - cp32_Carter_UAPdemo_eabegg_AGLEADER.zip

File Actions View Jobs Options Help Buy Now!

New Open Favorites Add Extract Encrypt View CheckOut Wizard

| Name | Type | Modified | Size | Ratio | Packed |
|--------------|----------|------------------|-------|-------|--------|
| Lime9000.tgt | TGT File | 2/7/2007 6:52 AM | 7,310 | 98% | 164 |



Supported Controller Formats:

- Satloc- Shape and PMD
- Trimble AgGPS
- New Leader/ Ag Leader- JD Dry
- John Deere- Spray Star, GreenStar I and II
- All third party shape files
- Falcon & Falcon II- AgChem TIFF, SoilTeq csv-ini
- AgLeader
- Mid-Tech Legacy
- Pocket PC- Site Mate
- Viper (Grid polygons) and Viper-2 (contour polys)

Other Features of Field Sampler

- Set re-sampling date reminders
- Custom CSV definition
- Custom Shape file definition
- Mass soil sample editor and manager
- Nematode and Plant Tissue sample management
- Multi year soil analysis trend
- Ability to create elemental, fertilizer, removal, and condensed lime application maps
- Soil nutrients and soil properties report
- Representative Summary

Infrared Data Layer- JDAS Imagery

https://www2.agfleet.com - Zone Maker - Mozilla Firefox

Zone Maker Location: A&L Demo Main Tools

Grower: Demo Grower
Farm: Demo Farms
Field: Demo Cotton Pivot

Available Data Load
Analysis Type
Single Variable

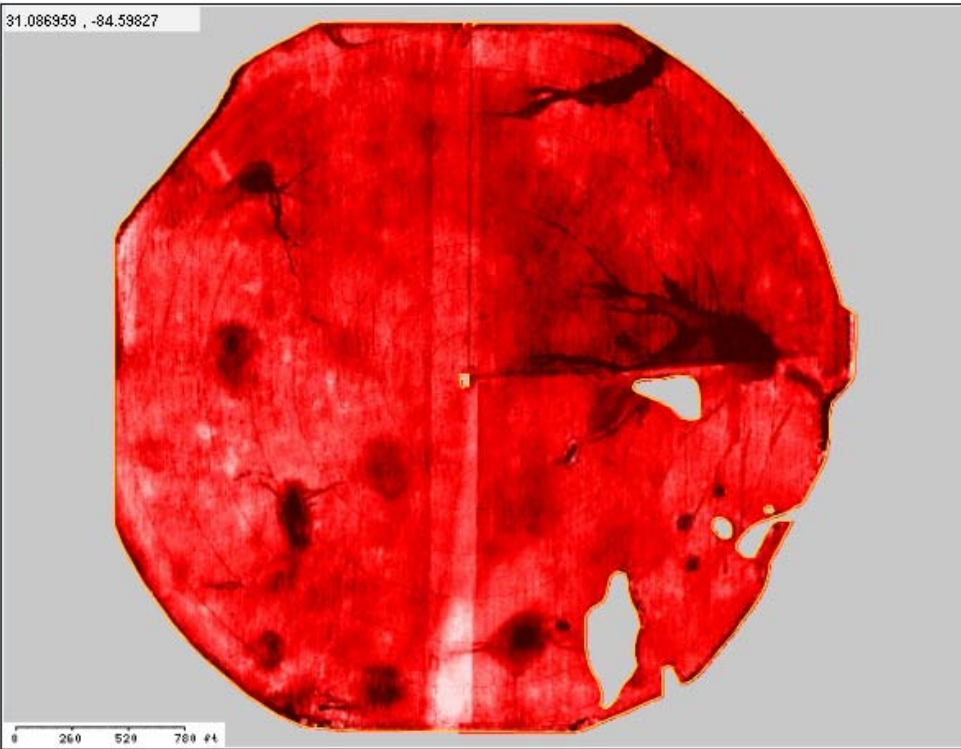
Acres: 206.59
+Aerial Imagery
2006-06-20 Infrared
2006-06-20 NDVI

Roads Streams Background Imagery

Mode
Zone Maker
of Levels: 2
Min Polygon: 0.5
Acre Size
 Grid Correction

Enter Break Points

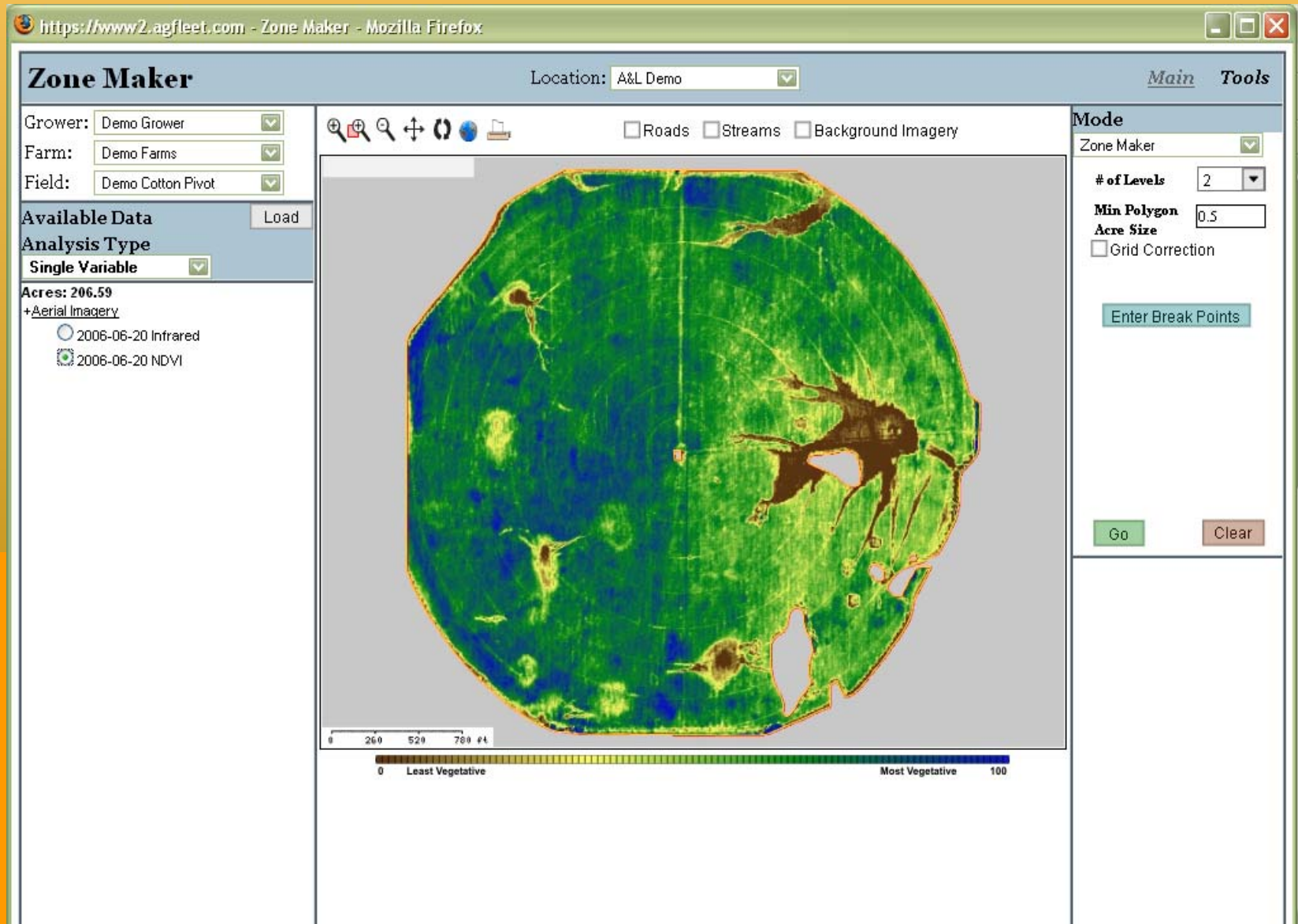
Go Clear



31.086959, -84.59827

0 260 520 780 #4
0 255

NDVI Image Data Layer



Making Zones in Zone Maker from the NDVI Aerial Image

https://www2.agfleet.com - Zone Maker - Mozilla Firefox

Location: A&L Demo

Zone Maker

Grower: Demo Grower
Farm: Demo Farms
Field: Demo Cotton Pivot

Available Data Load
Analysis Type
Single Variable

Acres: 206.59
+Aerial Imagery
2006-06-20 Infrared
2006-06-20 NDVI

31.083308, -84.588812

Roads Streams Background Imagery

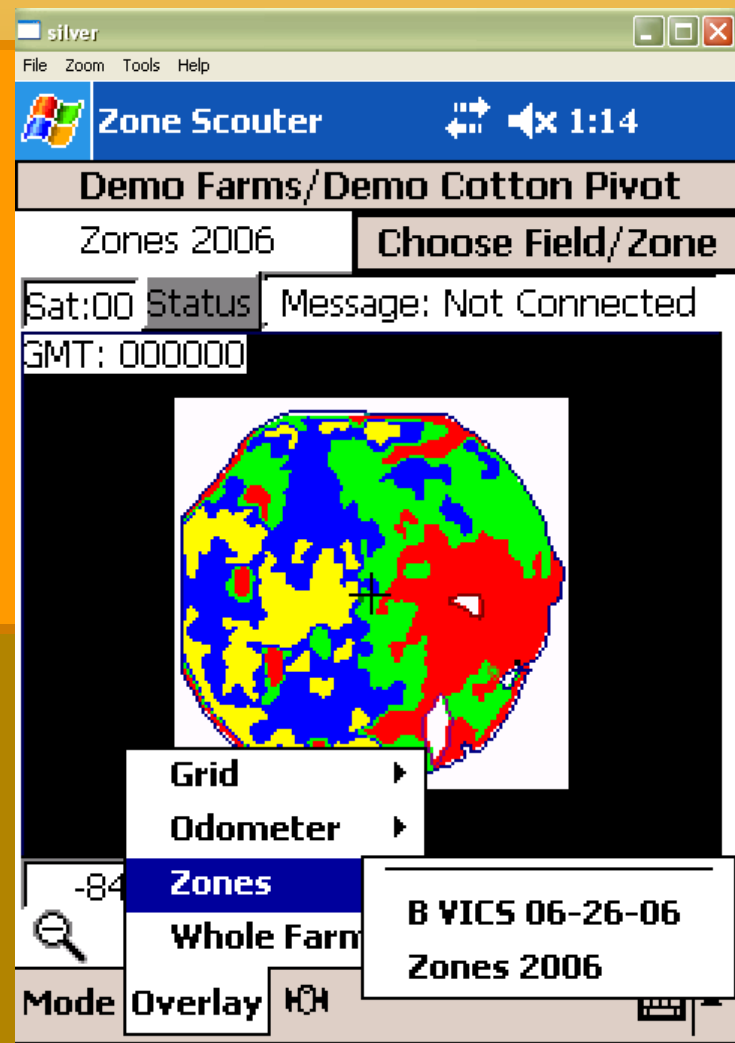
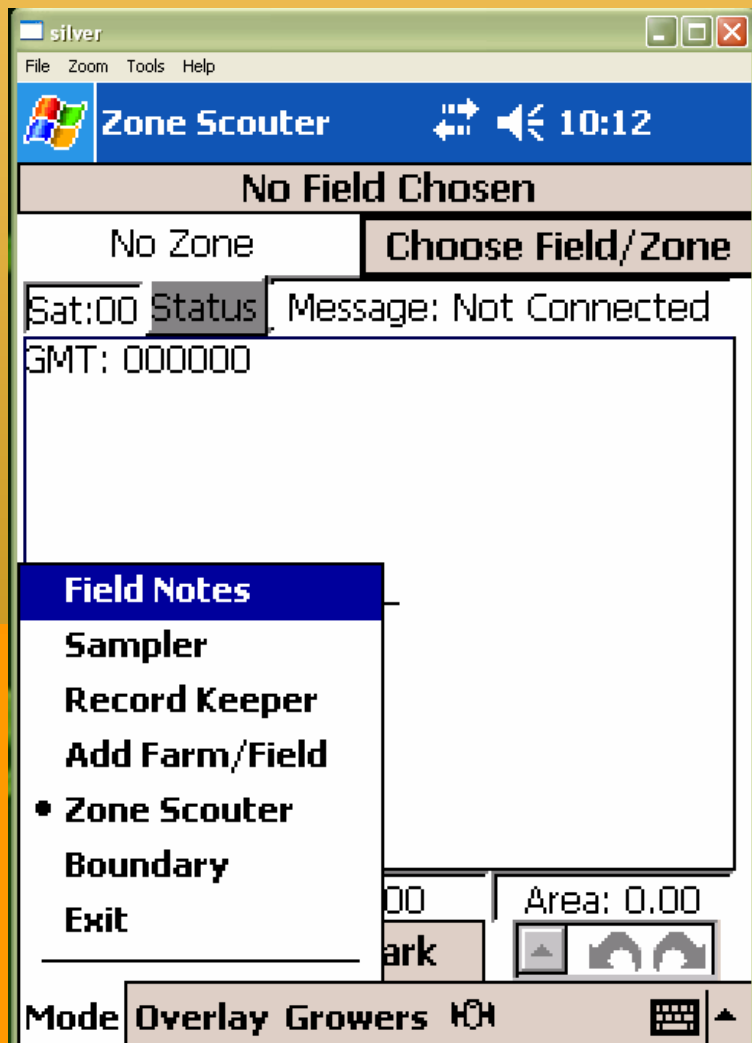
Mode
Zone Maker
of Levels: 4
Min Polygon: 0.5
Acres Size: 0.5
 Grid Correction
Enter Break Points
Go Clear

Zone Analysis
of Zones: 4
Min Ac: 0.5
Vertices: 4722

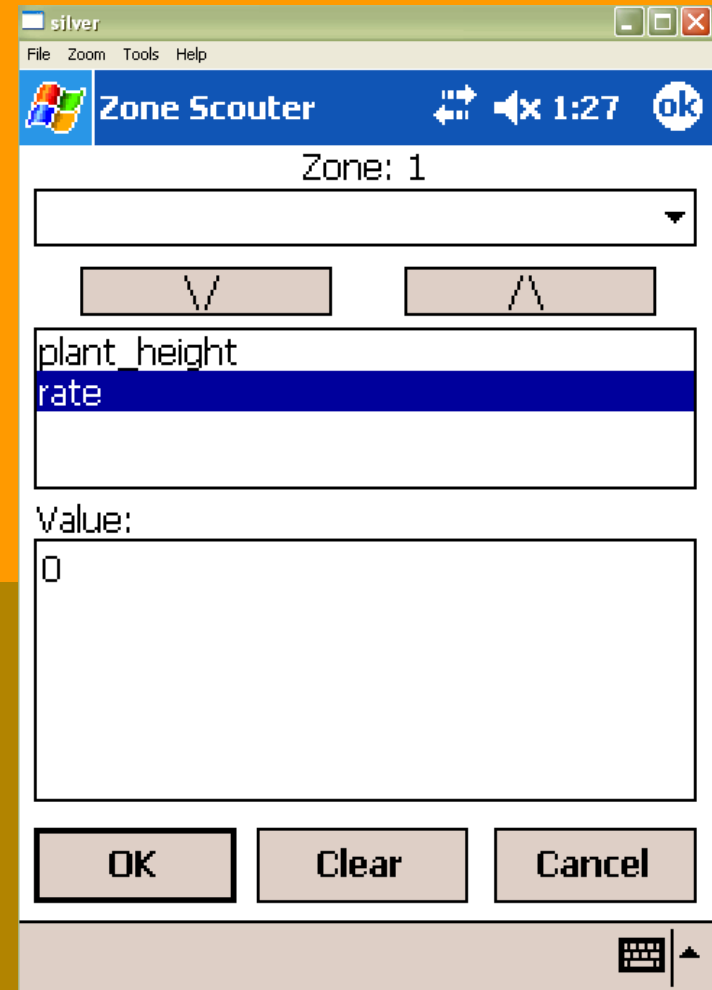
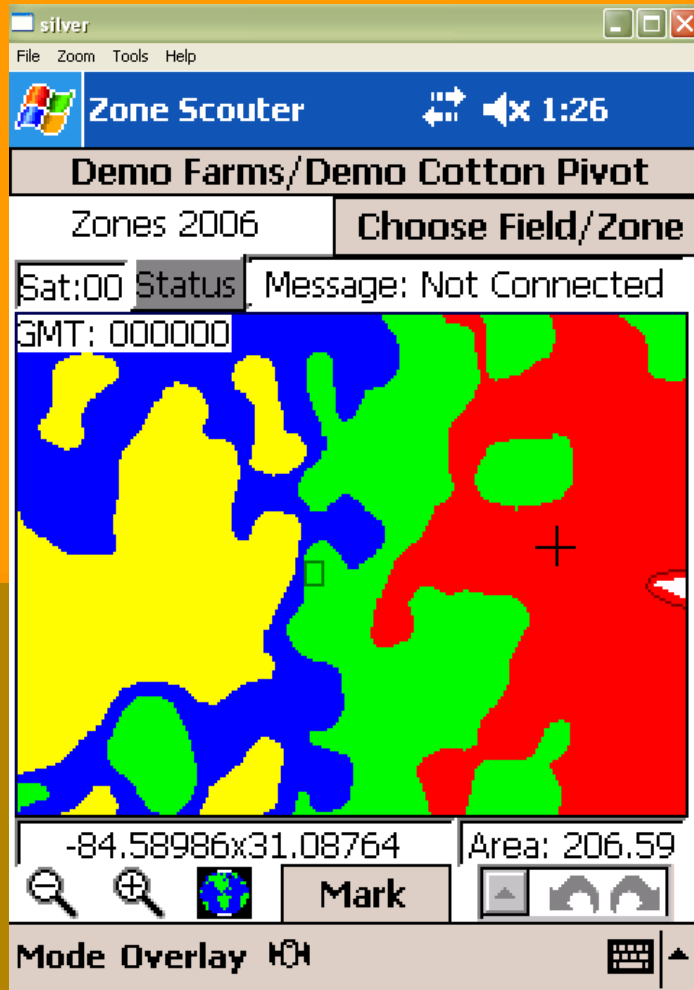
| | Ac. | Range |
|--------|------|--------------|
| Zone 1 | 52.4 | 1.0 - 56.0 |
| Zone 2 | 59.5 | 56.0 - 68.0 |
| Zone 3 | 62.4 | 68.0 - 77.0 |
| Zone 4 | 33.1 | 77.0 - 100.0 |

Export File Save Zones
To PDA

Send the zone map to the PDA to Ground Truth fields



Send the zone map to the PDA to Ground Truth fields



Create your VRT File

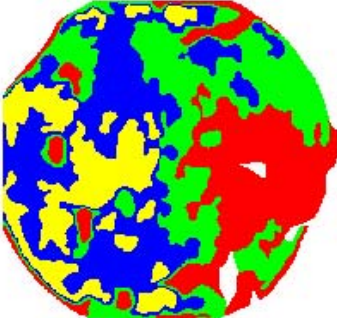
https://www3.agfleet.com - Zone Maker Analysis - Mozilla Firefox

Zone Maker Location: A&L Demo Main Tools

Mode: PDA Analysis

Grower: Demo Grower
 Farm: Demo Farms
 Field: Demo Cotton Pivot
 Analysis: B_VICS_06-26-06

Delete



■ Zone 1
 rate = 0
■ Zone 2
 rate = 16
■ Zone 3
 rate = 20
■ Zone 4
 rate = 16

Step 1: Start Selection

Product Type: Liquid Solution
 Export Format: AgChem TIFF

Step 2: Select Products and Rates

It is the user's responsibility to ensure solutions are mixed in a proper manner in accordance with the manufacturer's guidelines.

Number of Products: 1

Create Form

Average Rate (Gal/Ac): 7
 Batch Size (Gal): 800

Category: Hormone
 Product: Pix

| | Ac | Ac/Gal | Chem Oz/Ac | Spray Gal/Ac | Total Oz | Total Gal |
|--|------|--------|------------|--------------|----------|-----------|
| ● Zone 1 | 52.4 | | or 0 | 0 | 0 | 0 |
| ● Zone 2 | 59.5 | | or 16 | 5.6 | 952 | 333.2 |
| ● Zone 3 | 62.4 | | or 20 | 7 | 1248 | 436.8 |
| ● Zone 4 | 33.1 | | or 16 | 5.6 | 529.6 | 185.36 |
| Total | | | | | 2729.6 | 955.36 |

Calculate
 Export Zones

“Agfleet has made the process of collecting samples, filing results, scheduling future work, and prescription generation automatic. This leaves me more time to produce useable output and less time on getting the sample data "into the system". It has truly made the process from sample collecting to application seamless. And easy. And fast!”

Bill Brooks

Mid-South Farmers Cooperative

Alamo, TN

Time is Money, Right?

Or is it Something Else?



“I've got an 82 page report set to print, paper and ink loaded, and I'm going to bed. I've got bow-hunting to do tomorrow (I didn't see the woods until the middle of December last year because I was too busy doing reports and importing data). Middle of November this year and I'm almost through; with more acres to scout this year than last year.”

Andy Graves

Graves Agronomy Service, MS

www.agfleet.com



www.allabs.com